VAW-120 Greyhawks: Training Aircrews for the Fleet

By Rick Llinares

Flight operations on board a carrier may appear routine, but it takes years of training to turn fledgling Naval Aviators into combat-ready warriors—who slam their aircraft into the arresting cables at the end of a carrier, day and night, in all kinds of weather. After flight students graduate from the training command, Navy fleet replacement squadrons (FRS) are responsible for preparing aircrew members to fly specific aircraft models. The Navy employs these specialized units to complete the last in a long series of steps that aircrews take before flying aircraft in fleet service.

Carrier Airborne Early Warning Squadron (VAW) 120, Norfolk, Va., is the only FRS for E-2C Hawkeye and C-2A Greyhound aircrews. The *Greyhawks* trace their roots to 1948 when the squadron was established as RVAW-2 at NAS Norfolk, their current home. The unit has had the E-2 Hawkeye since 1970, and on 1 May 1983 it began flying E-2Bs and E-2Cs. When its West Coast FRS counterpart, VAW-110, was disestablished in September 1994, the squadron acquired additional aircraft, personnel and responsibility. VAW-120 received its first C-2A in 1985, and the *Greyhawks* assumed the added role of training C-2 pilots and aircrewmen. Today, with the addition of the latest E-2, the Hawkeye 2000, the *Greyhawks* continue their tradition of excellence in providing the fleet with qualified, capable aircrews.

Public Affairs Officer Lieutenant Bob Spath detailed the squadron's current makeup, "VAW-120 has 17 aircraft, a mixture of 12 E-2Cs

Photo by Rick Llinares

As an airborne early warning and command and control aircraft, the E-2C Hawkeye, opposite, scans the sea and sky for threats to the fleet. It also acts as a communications platform for other aircraft and coordinates search and rescue operations. Above, the C-2 Greyhound's carrier-onboard-delivery function provides critical spare parts, personnel and mail to and from fleet carriers.

and 5 C-2As; 60 instructors; and 500 enlisted personnel. The unit turns out qualified E-2C and C-2 pilots; E-2C Naval Flight Officers (NFO); and C-2 enlisted aircrewmen. Every year, the squadron conducts four training classes that include more than 20 students each—the majority being equally split between pilots and NFOs, along with a small number of aircrewmen."

The curriculum for pilots, NFOs and aircrewmen varies, but each includes a combination of classroom instruction, simulator time and actual flying. All of this is done by the cadre of highly qualified instructors, who must have accumulated at least 1,000 flight hours and have been selected for early promotion on their fitness report. They will also have at least a single sea tour under their belt. Once

selected as an instructor, the officer must go through a six-week course prior to actually teaching students. Lt. Spath said, "The instructor course is given by current VAW-120 instructors who have been specifically trained to teach those who will become instructors."

One challenge to students is the complexity of the aircraft and the sophisticated avionics and radar systems. The E-2 and C-2 have the largest wingspan of any aircraft that operate from the deck of a carrier. For the pilots, the large wingspan leaves little room for error on lineup and landing aboard ship. Unlike newer fleet aircraft, such as the F/A-18 Hornet, neither the E-2 nor C-2 have digital flight controls. They are each powered by twin turboprop engines and are demanding to fly.

Instructor pilot Lt. Tim Slentz commented, "The most difficult thing for students in the E-2 and C-2 is controlling the aircrafts' tendency to yaw left and right a bit, especially on power adjustments. To counteract this tendency, you have to add rudder, so your hands and feet are always moving as you try to maintain directional control. Also, the landing area of a *Nimitz* (CVN 68)-class carrier is 90 feet wide. The E-2's wingspan is 85 feet, so a landing approach that is only 5 feet off centerline can present a potential hazard to personnel and parked aircraft. We train the pilots of the E-2/C-2 to a very strict tolerance on lineup."

When asked to describe the biggest hurdle that instructors face in teaching pilots how to fly the aircraft, Lt. Slentz stated, "Knowing how long or short a leash to give a student so they learn from their mistakes without endangering themselves or aircraft. We also teach more than flying skills. We train them to think through emergency scenarios while maintaining safety. Practicing single-engine flying, landing gear problems, etc., in the simulator helps determine how the students handle themselves in problem-solving situations. At what point to step in and

Right, this shot of a C-2A launching emphasizes the aircraft's large wingspan. Below, bringing a Greyhound on board a carrier deck is challenging for the pilot because the large wingspan leaves little room for error on lineup and landing.

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take the controls from them while ensuring the learning points are covered is among the more challenging aspects of the instructor's job. The average time to get comfortable in flying the aircraft is 700 to 800 hours in order to develop the proper seat-of-the-pants feel."

At first glance, the only distinguishing feature between the two aircraft is the rotodome atop the E-2's fuselage, which houses the rotating radar antenna that can scan many cubic miles of airspace, as well as surface targets. There are, however, some differences in flying the C-2 and E-2. Lt. Slentz explained, "I have found the C-2 to be more stable in maintaining landing attitude compared to the E-2. But, the power difference is a large factor in worst-case scenarios like a single-engine catapult shot in a humid environment, such as typical operations in the Arabian Gulf. You have a higher safety probability of staying out of trouble with the more powerful E-2 engines, even if you lost one on the catapult shot."

During the nine-month FRS program, E-2 and C-2 pilots will complete between 15 and 20 flights, which culminate in receiving their carrier qualification in the aircraft. To reach this important milestone, a pilot must successfully achieve 2 daytime touch-and-go landings and 10 complete landings aboard ship, as well as 2 nighttime touch-and-go landings and 6 full-stop landings. As important as flying the aircraft, the critical roles filled by the back-seaters are essential to mission success. In the rear cabin of the E-2, three NFOs handle the aircraft systems, radar and communications. This is where the aircraft earns its nickname "the eyes and ears of the fleet." Mastering the complexity of the Hawkeye's radar and avionics systems requires extensive study in a 12-month program, at the completion of which they are designated NFOs. The C-2 aircrewmen manning the back of the Greyhound are charged with the safety of the vital carrier-onboard-delivery mission. To qualify, students must complete a six-month curriculum.

The E-2 and C-2 students who graduate from the FRS are ready for the challenges of the fleet. Their knowledge and skills were honed in the capable hands of the *Greyhawks* of VAW-120.

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The author is grateful to Cdrs. Hal Pittman and Ed Rosequist; Lts. Bob Spath and Tim Slentz; and Mike Maus of AIRLANT Public Affairs for their assistance with this article.